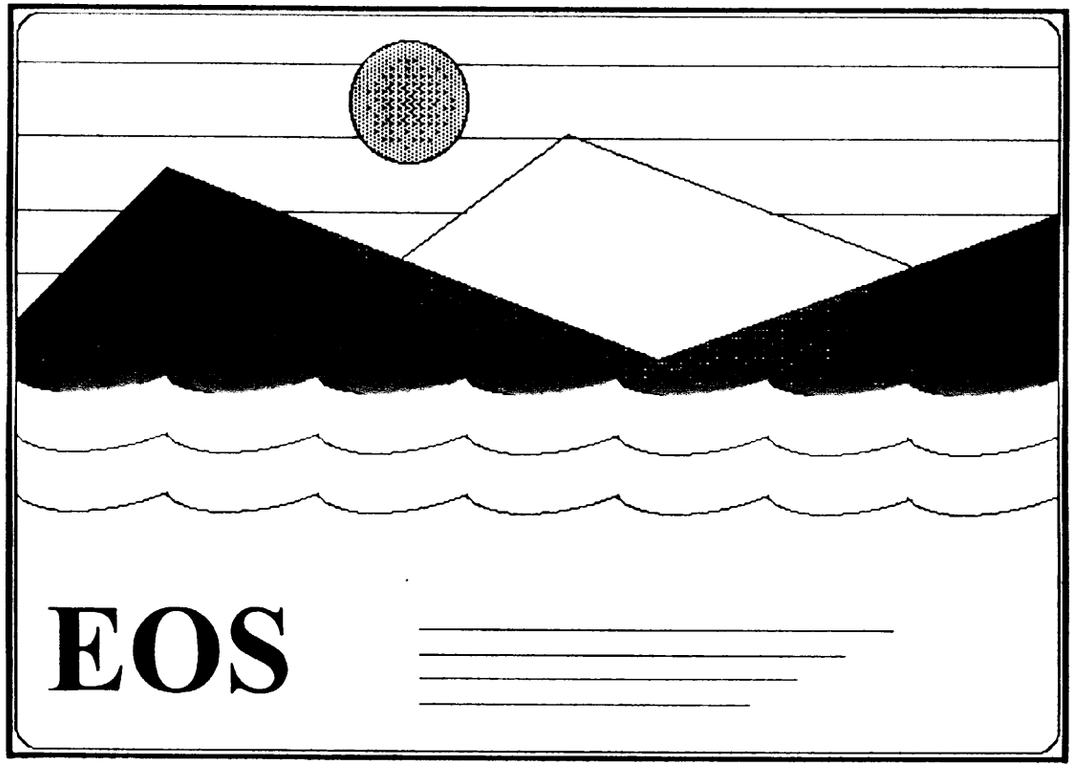
QUARTERLY PROGRAM STATUS REVIEW
EOS ICE, CLOUD & LAND ELEVATION SATELLITE (ICESAT) OFFICE, CODE 401.6
UPN 227-6 & 229-GLAS



APRIL 9, 1998

EOS ICESAT MISSION OFFICE

401.6

JOE DEZIO, CHIEF

GREG SMITH, FLIGHT MANAGER

LINDA GREENSLADE, RESOURCES MANAGER

DARLENE FENNELL, RESOURCES ANALYST

BILL ANSELM, OBSERVATORY MANAGER

MARK KOWALESKI, OPERATIONS MANAGER

CATHY FLESHMAN, PROJECT SUPPORT

900

DR. JIM ABSHIRE, INSTRUMENT SCIENTIST

DR. JAY ZWALLY, PROJECT SCIENTIST

SCIENCE TEAM LEADER

DR. BOB SCHUTZ, UNIV. OF TEXAS - AUSTIN

EOS ICESAT MISSION

PROJECT DESCRIPTION

ICESAT IS ONE OF THE FIRST 24 ESSP/EOS SCIENCE MEASUREMENTS. THE GEOSCIENCE LASER LATIMETER SYSTEM (GLAS) FACILITY INSTRUMENT WILL MAKE THE SCIENCE MEASUEMENTS AND WILL BE DEVELOPED BY CODE 924 WITH GSFC AND INDUSTRY PARTICIPATION. THE SPACECRAFT BUS, MISSION INTEGRATION AND TEST, AND LAUNCH SUPPORT WILL BE PROCURED FROM THE BALL AEROSPACE AND TECHNOLOGIES CORPORATION. A DELIVERY ORDER ON THE RAPID SPACECRAFT DEVELOPMENT CONTRACT WILL BE USED FOR THE PROCUREMENT WHICH IS MANAGED BY THE PROJECT. SCIENCE DATA AND PRODUCTS WILL BE ARCHIVED AND DISTRIBUTED BY THE EOSDIS.

EOS ICESAT MISSION

MISSION SCIENCE OBJECTIVES

PRIMARY

- DETERMINE THE MASS BALANCE OF THE POLAR ICE SHEETS AND THEIR CONTRIBUTIONS TO GLOBAL SEA-LEVEL CHANGE

- OBTAIN DATA ON VARIATIONS IN ICE MELTING AND PRECIPITATION FOR PREDICTION OF FUTURE CHANGE IN ICE VOLUME AND SEA LEVEL

SECONDARY

- MEASURE CLOUD HEIGHTS AND THE VERTICAL STRUCTURE OF CLOUDS AND AEROSOLS IN THE ATMOSPHERE

- MAP THE TOPOGRAPHY OF LAND SURFACES

- MEASURE VEGETATION HEIGHTS AND THE ROUGHNESS AND RFLECTIVITY OF SNOW COVER, SEA-ICE AND LAND SURFACES

EOS ICESAT MISSION

MISSION ATTRIBUTES AT CONFIRMATION REVIEW (4/98)

ORBIT:	600 KM, 94° INCLINATION, NON SUN-SYNCHRONOUS
LAUNCH VEHICLE:	TAURUS XL OR ATHENA-2
LAUNCH MASS:	725 KG (W/CONTINGENCY)
S/C POWER (EOL):	500 Wavg (W/CONTINGENCY)
LIFETIME:	3 YEAR DESIGN LIFE; 5 YEAR GOAL
	S/C EXPENDABLES SIZED FOR 5 YEARS
GLAS MASS:	300 KG (W/15% CONTINGENCY)
GLAS POWER:	300 Wavg (W/ 15% CONTINGENCY)

PROJECT STATUS

THE MISSION IS PREPARING FOR THE CONFIRMATION REVIEW, THE INSTRUMENT COMPLETED PDR, BALL AEROSPACE WAS SELECTED TO PROVIDE THE SPACECRAFT, MISSION I & T, AND LAUNCH SUPPORT, AND THE SCIENCE TEAM IS PREPARING TO BEGIN PHASE C/D.

DIRECTORATE: 400

TEAM MANAGER'S ASSESSMENT

PROJECT: ICESAT

APRIL 9, 1998

- ICESAT STATUS IS GOOD!

  - INSTRUMENT PDR WAS SUCCESSFULLY COMPLETED IN JANUARY, THE BUS DELIVERY ORDER WITH BATC WAS SIGNED ON FEBRUARY 5TH FOR $39.4M.

  - THE TEAM IS PREPARING FOR THE LANGLEY-CHAIRED ICESAT CONFIRMATION REVIEW TO BE HELD AT GSFC ON APRIL 20TH AND 21ST.

  - HAVE JUST LEARNED THAT THE JASON-1 AND ICESAT GPS RECEIVERS BEING DEVELOPED BY JPL AT SPECTRUM ASTRO WILL ONLY HAVE COMMERCIAL PARTS. THE ICESAT GPS RECEIVERS ARE MISSION CRITICAL DEVICES AND COMMERCIAL PARTS WILL BE UNACCEPTABLE. WE HAVE BEGUN DISCUSSING THIS MATTER WITH JPL.

ICESAT MISSION SUMMARY

STATUS AS OF: APRIL 9, 1998

TECHNICAL

	JAN	FEB	MAR
GLAS INSTRUMENT DEVELOPMENT	G	G	G
GLAS SCIENCE DEVELOPMENT	G	G	G
SPACECRAFT BUS	G	G	G
LAUNCH VEHICLE	Y	G	G
MISSION OPERATIONS	G	G	G

BUSINESS

	JAN	FEB	MAR
COST	G	G	G
SCHEDULE	G	G	G
PROCUREMENT	G	G	G
WORK FORCE	G	G	G
TRAVEL	G	G	G

RESOURCES

	JAN	FEB	MAR
MASS	G	G	G
POWER	G	G	G
DATA RATE	G	G	G

	JAN	FEB	MAR
DATA STORAGE	G	G	G
FUEL	G	G	G

ASSESSMENT SUMMARY

	TECHNICAL	COST	SCHEDULE	OVERALL
S/C	G	G	G	G
INSTRUMENTS	G	G	G	G
LAUNCH VEHICLE	G	G	G	G

LEGEND

- G — GOOD SHAPE
- Y — MINOR PROBLEM
- R — MAJOR PROBLEM

ICESAT TOP TEN PROBLEMS

AS OF APRIL 9, 1998

PROBLEM/ISSUES	PROGRAMMATIC IMPACT	ACTION	STATUS
NONE YET!			

DIRECTORATE: 400

SIGNIFICANT PROGRESS

PROJECT: ICESAT

APRIL 9, 1998

- A COMPREHENSIVE GLAS SCIENCE RESPONSE TO THE EOSDIS "ADAPTIVE IMPLEMENTATION APPROACH WAS PRESENTED TO THE ESDIS LEAD SCIENTIST. ALTIMETRY DATA PROCESSING VIA THE AUGMENTED GLAS SCF APPEARS TO BE THE RIGHT WAY FOR ICESAT TO PROCEED. THE COST ESTIMATE FOR THIS ADDITIONAL SCIENCE TEAM EFFORT IS NEARLY READY FOR CODE 170 PLANNING.

DIRECTORATE: 400

SIGNIFICANT PROGRESS

PROJECT: ICESAT

APRIL 9, 1998

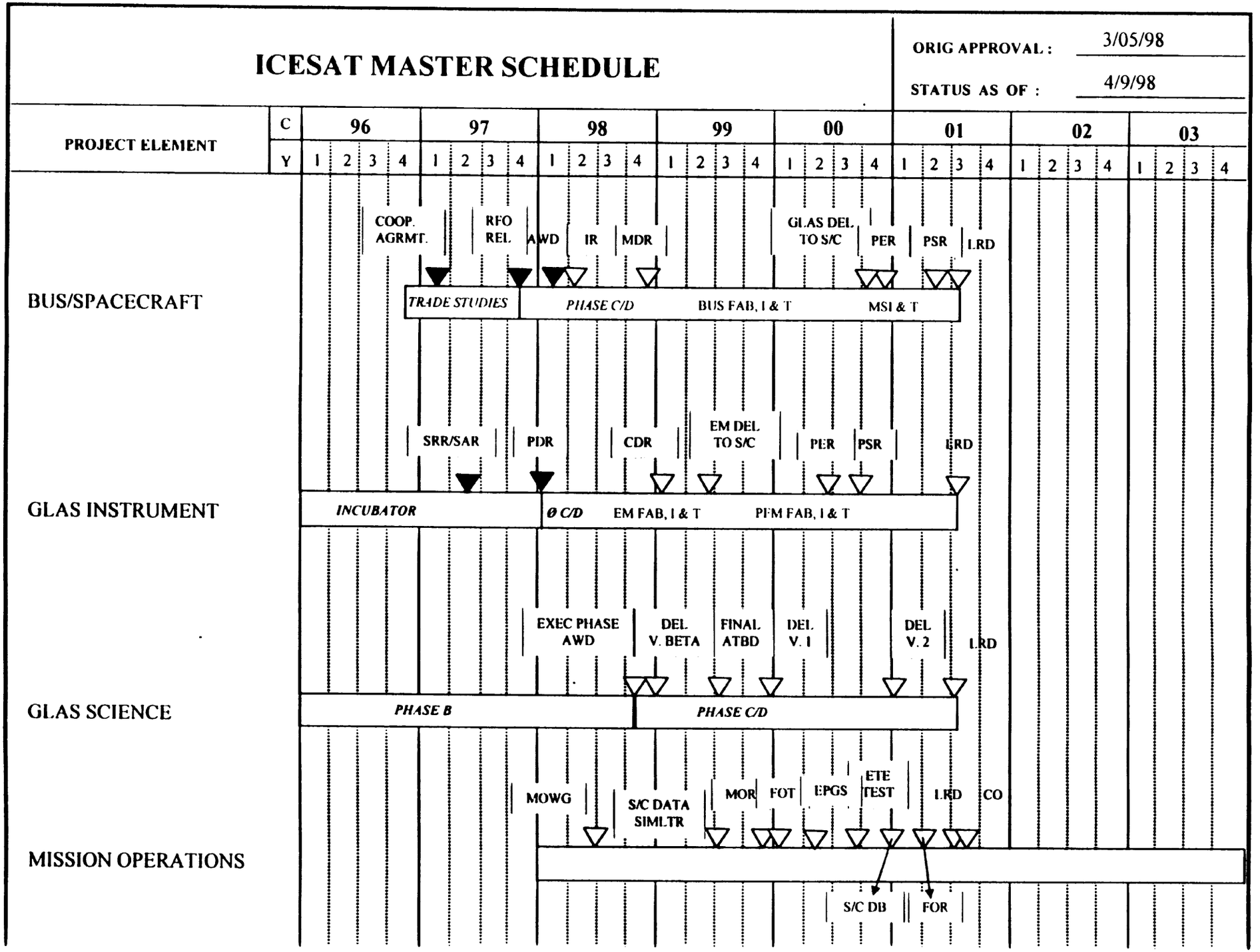
- INFORMALLY MET WITH THE LANGLEY CONFIRMATION REVIEW TEAM TO PROVIDE ICESAT BACKGROUND INFORMATION AND THE DRAFT REVIEW PACKAGE. LANGLEY APPRECIATED THE ADVANCE INFORMATION AND PROVIDED COMMENTS, QUESTIONS AND ISSUES TO BE DISCUSSED ON APRIL 20TH AND 21ST.

- SUCCESSFULLY PRESENTED THE ICESAT POP 98-1 TO CODE 400. THE OVERALL DEVLEOPMENT PROGRAM WILL BE UNDERGUIDE DUE TO COST SAVINGS FROM THE BUS PROCUREMENT. ON THE OTHER HAND, OUR SOURCES TELL US THAT KSC IS $5M OVERGUIDE ON THE LAUNCH VEHICLE. WE ARE LOOKING INTO THIS.

ICESAT MASTER SCHEDULE

ORIG APPROVAL : 3/05/98

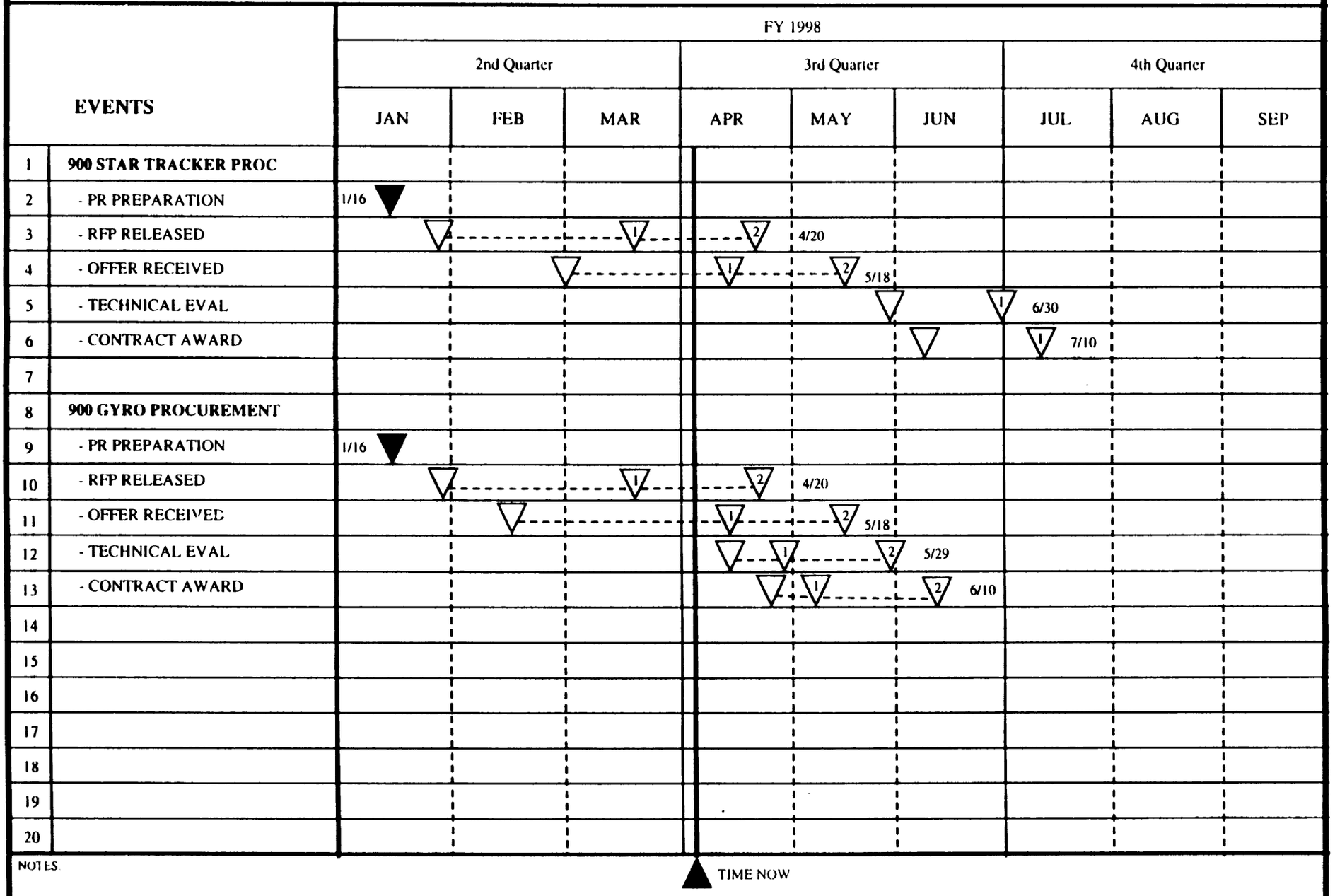
STATUS AS OF : 4/9/98



ICESAT

9-MONTH SCHEDULE OF SIGNIFICANT EVENTS

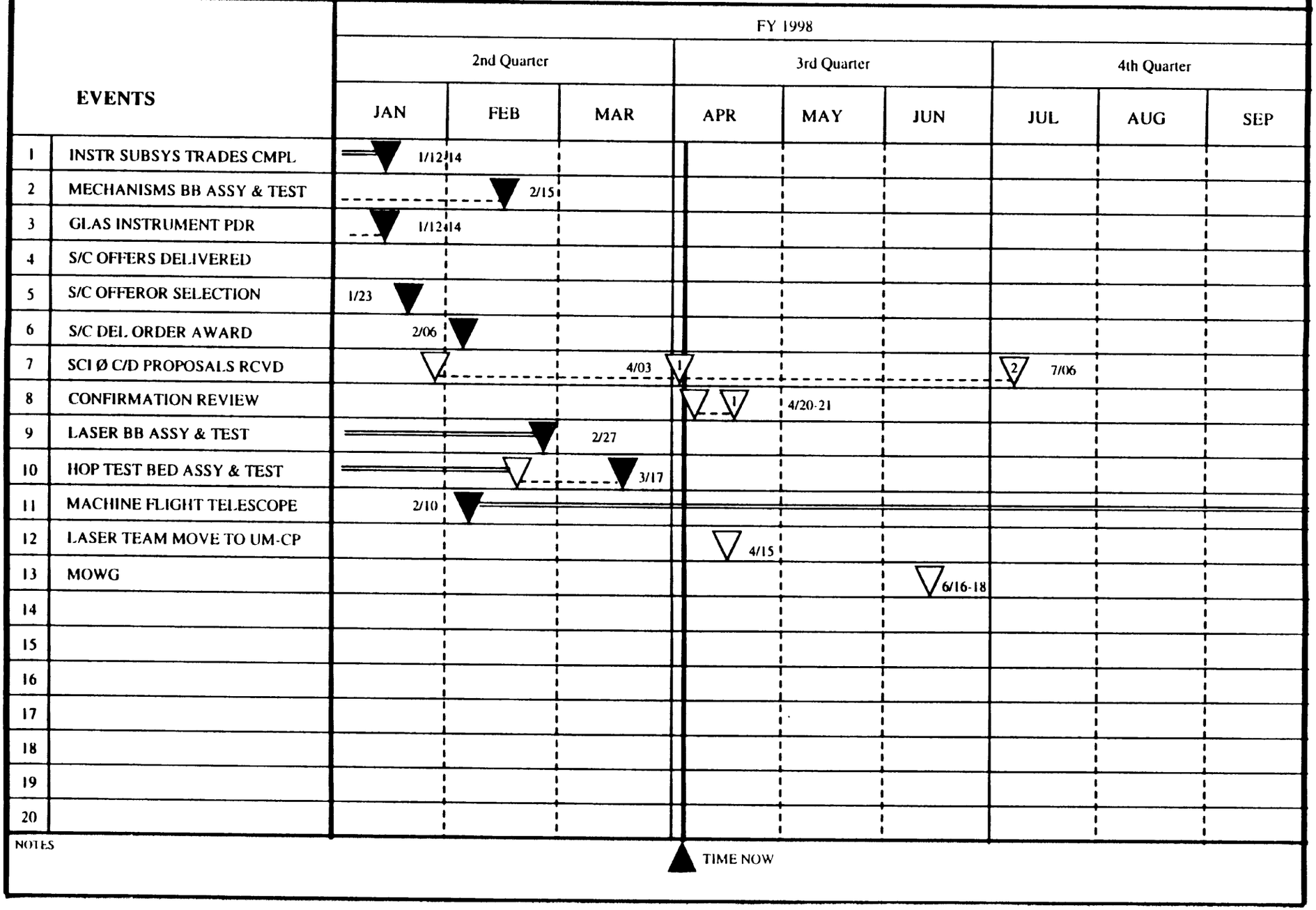
STATUS AS OF: 4/09/98



ICESAT

9-MONTH SCHEDULE OF SIGNIFICANT EVENTS

STATUS AS OF: 4/09/98



LASER ALTIMETRY MISSION (LAM) ACRONYMS

ASSY	ASSEMBLY
ATBD	ALGORITHM THEORETICAL BASIS DOCUMENT
AWD	AWARD
BATC	BALL AEROSPACE AND TECHNOLOGIES CORP.
BB	BREADBOARD
CDR	CRITICAL DESIGN REVIEW
CDRL	CONTRACT DELIVERABLE REQUIREMENTS LIST
CMPL	COMPLETE
CO	CHECKOUT
DEL	DELIVERY
DOC'N	DOCUMENTATION
EOL	END-OF-LIFE
ELV	EXPENDABLE LAUNCH VEHICLE
EM	ENGINEERING MODEL
ESDIS	EARTH SCIENCE DATA & INFORMATION SYSTEM
ESSPO	EARTH SCIENCE SYSTEMS PROGRAM OFFICE
EXEC	EXECUTION
FAB	FABRICATION
FCA	FULL COST ACCOUNTING
FRR	FLIGHT READINESS REVIEW
GLAS	GEOSCIENCE LASER ALTIMETER SYSTEM
I & T	INTEGRATION AND TEST

LASER ALTIMETRY MISSION (LAM) ACRONYMS (CONT.)

ICESAT	ICE, CLOUD & LAND ELEVATION SATELLITE
IMDC	INTEGRATED MISSION DESIGN CENTER
IR	INDEPENDENT REVIEW
KSC	KENNEDY SPACE CENTER
LaRC	LANGLEY RESEARCH CENTER
LMLV	LOCKHEED-MARTIN LAUNCH VEHICLE
LRD	LAUNCH READINESS DATE
MDR	MISSION DESIGN REVIEW
MGR	MANAGER
MOR	MISSION OPERATIONS REVIEW
MOWG	MISSION OPERATIONS WORKING GROUP
MSI & T	MISSION SYSTEM I & T
NOA	NEW OBLIGATION AUTHORITY
OLS	ORBITAL LAUNCH SERVICES
ORR	OPERATIONAL READINESS REVIEW
PAF	PAYLOAD ATTACH FITTING
PDR	PRELIMINARY DESIGN REVIEW
PER	PRE-ENVIRONMENTAL REVIEW
PFM	PROTOFLIGHT MODEL
PMT	PHOTO MULTIPLIER TUBE
POP	PROGRAM OPERATING PLAN
PSR	PRE-SHIP REVIEW

LASER ALTIMETRY MISSION (LAM) ACRONYMS (CONT.)

REL	RELEASE
RFO	REQUEST FOR OFFER
RFP	REQUEST FOR PROPOSAL
ROB	REASSIGNMENT OPPORTUNITY BULLETIN
RQMTS	REQUIREMENTS
RSD	RAPID SPACECRAFT DEVELOPMENT
RSDO	RAPID SPACECRAFT DEVELOPMENT OFFICE
SAR	SYSTEM ARCHITECTURE REVIEW
S/C	SPACECRAFT
SCF	SCIENCE COMPUTING FACILITY
SCI	SCIENCE
SRS	STELLAR REFERENCE SYSTEM
SEL	SELECTION
SELV	SMALL ELV
SOW	STATEMENT OF WORK
SRR	SYSTEM REQUIREMENTS REVIEW
S/S	SUBSYSTEM
STAAC	SPACE TECHNOLOGY AND ADVANCED CONCEPTS
SUBSYS	SUBSYSTEM
SYS	SYSTEM
UPN	UNIQUE PROJECT NUMBER
V.	VERSION